

§ 600.111–08 Test procedures.

This section describes test procedures for the FTP, highway fuel economy test (HFET), US06, SC03, and the cold temperature FTP tests. Perform testing according to test procedures and other requirements contained in this part 600 and in 40 CFR parts 86 and 1066, including the provisions of 40 CFR part 86, subparts B, C, and S. Manufacturers may certify vehicles based on data collected according to previously published test procedures for model years through 2021. In addition, we may approve the use of previously published test procedures for later model years as an alternative procedure under 40 CFR 1066.10(c). See 40 CFR 86.101 and 86.201 for detailed provisions related to this transition.

(a) *FTP testing procedures.* Conduct FTP testing as described in 40 CFR 1066.810 through 1066.820. You may omit evaporative emission measurements for testing under this part 600 unless we specifically require it.

(b) *Highway fuel economy testing procedures.* Conduct HFET testing as described in 40 CFR 1066.840.

(c) *US06 testing procedures.* Conduct US06 testing as described in 40 CFR 1066.830 and 1066.831.

(d) *SC03 testing procedures.* Conduct SC03 testing as described in 40 CFR 1066.830 and 835.

(e) *Cold temperature FTP procedures.* Conduct cold temperature FTP testing as described in 40 CFR part 1066, subpart H.

(f) *Testing with alternative fuels.* For vehicles designed to operate on an alternative fuel in addition to gasoline or diesel fuel, perform FTP and HFET testing as described in paragraphs (a) and (b) of this section for each type of fuel on which the vehicle is designed to operate. No US06, SC03, or cold temperature FTP testing is required on the alternative fuel.

(g) *Testing for vehicles with rechargeable energy storage systems.* Test electric vehicles and hybrid electric vehicles as described in § 600.116.

(h) *Special test procedures.* We may allow or require you to use procedures other than those specified in this section as described in 40 CFR 1066.10(c). For example, special test procedures may be used for advanced technology

vehicles, including, but not limited to fuel cell vehicles, hybrid electric vehicles using hydraulic energy storage, and vehicles equipped with hydrogen internal combustion engines. Additionally, we may conduct fuel economy and carbon-related exhaust emission testing using the special test procedures approved for a specific vehicle.

[79 FR 23746, Apr. 23, 2014]

§ 600.112–08 Exhaust sample analysis.

The exhaust sample analysis must be performed according to § 86.140, or § 86.240 of this chapter, as applicable.

[71 FR 77935, Dec. 27, 2006]

§ 600.113–12 Fuel economy, CO₂ emissions, and carbon-related exhaust emission calculations for FTP, HFET, US06, SC03 and cold temperature FTP tests.

The Administrator will use the calculation procedure set forth in this paragraph for all official EPA testing of vehicles fueled with gasoline, diesel, alcohol-based or natural gas fuel. The calculations of the weighted fuel economy and carbon-related exhaust emission values require input of the weighted grams/mile values for total hydrocarbons (HC), carbon monoxide (CO), and carbon dioxide (CO₂); and, additionally for methanol-fueled automobiles, methanol (CH₃OH) and formaldehyde (HCHO); and, additionally for ethanol-fueled automobiles, methanol (CH₃OH), ethanol (C₂H₅OH), acetaldehyde (C₂H₄O), and formaldehyde (HCHO); and additionally for natural gas-fueled vehicles, non-methane hydrocarbons (NMHC) and methane (CH₄). For manufacturers selecting the fleet averaging option for N₂O and CH₄ as allowed under § 86.1818 of this chapter the calculations of the carbon-related exhaust emissions require the input of grams/mile values for nitrous oxide (N₂O) and methane (CH₄). Emissions shall be determined for the FTP, HFET, US06, SC03 and cold temperature FTP tests. Additionally, the specific gravity, carbon weight fraction and net heating value of the test fuel must be determined. The FTP, HFET, US06, SC03 and cold temperature FTP fuel economy and carbon-related exhaust emission values shall be calculated as specified in this section. An